

Applicants submit that claim 14 conforms to 35 U.S.C. §112, first paragraph.

The barrier layer disclosed in the specification and appearing in the claims performs the function of stopping diffusible materials, e.g., dyes, comprising a water-based colorant image from diffusing into the support. This is a conventional function of barrier layers, which are conventional layers in ink jet media. In support of this position, Applicants call to the Examiner's attention two representative patents. These patents are enclosed. See Ogawa (U.S. 5,472,757) and Janssens, et al. (U. S. 5,476,746). Both of these references commonly use the expression "barrier layer" in their descriptions. Applicants' attorney found these references by using the USPTO database and looking for the words "ink jet" and "barrier layer." In the time period of 1991 – 1995, Applicants' attorney uncovered 82 patents that used both terms in the same patent.

The Ogawa and Janssens, et al. references clearly demonstrate that the term "barrier layer" is recognized by those skilled in the art. Indeed, those skilled in the art use the term "barrier layer" the same way that Applicants use it. Particular materials that comprise the barrier layer are not relevant to the invention. What is relevant is the function of the barrier layer: preventing the penetration of the dye into the support underlying the barrier layer. It should be further noted that contrary to the assertion in the Office Action, a barrier layer is not equivalent to a subbing/primer layer, whose function is to promote adhesion of a coated layer to a substrate.

Since "barrier layer" is an accepted term commonly used by those skilled in the art, the rejection under 35 U.S.C. §112 is improper and should be withdrawn.

Claims 1 and 2 were also rejected under 35 U.S.C. §112 as being indefinite due to the phrase "selected so as to be able to receive." That phrase does not appear in new claims 13 and 14.

The following remarks will show that the cited references differ in structure and result from the claimed invention. Neither reference shows or suggests a structure that bears two images on different layers.

Claims 13 and 14 recite that the clear layer receives and holds the water-based colorant and is more hydrophilic than the information receiving layer. This comparative hydrophilic limitation distinguishes the invention from the references of record.

The Iqbal reference fails to meet this limitation. Indeed, the Iqbal reference is contrary to this limitation. In the Iqbal reference the semi-interpenetrating networks

(SIPN) layers are the image holding layers. The SIPNs are the liquid receiving layers in a three layer device. Only the SIPN layers carry an image. The SIPN layer is defined as the ink absorbing layer of the combination. See col. 8, line 6.

The SIPN layer is strongly hydrophilic. Some of the same materials that the Applicants use as hydrophilic elements are found in the SIPN layer. For example, the reference teaches using polyvinylpyrrolidone as a component of the SIPN layer. See col. 7, line 14. It is also correct that polyvinyl alcohol is used in the optional top layer, which, if present, simply functions as an antitack protective layer and is not sufficiently hydrophilic to hold the water-based colorants. Applicants believe that the hydrophilic properties of polyvinyl alcohol are reduced by the starch particles that are dispersed in the alcohol layer. See col. 8, lines 19-25. In contrast to the clear top layer of applicants' receiver, the top layer of Iqbal's three layer media does not hold image-based colorants.

The only mention of polyvinyl alcohol as a separate layer appears at that location. All of the other examples shown in Iqbal are two layer sheets where the SIPN layer is the top layer. Those two layer examples positively show that the SIPN layer is not only the top layer, but is the only image-receiving layer or information-bearing layer in the disclosed structure. As such, Iqbal fails to show or suggest a receiver media that has a first information receiving layer and an overlying, second clear hydrophilic layer for receiving and holding water-based colorants.

The Hasegawa reference suffers from the same defects as Iqbal. Hasegawa has a surface ink transporting layer that "is made to absorb the ink well but does not retain ink" (col. 3, lines 22-23, emphasis added.) "An ink retaining layer which forms an image by retaining permanently the dye in the ink transported from the ink transporting layer is formed under the surface layer." Col. 3, lines 29-27, emphasis added.)

Hasegawa characterizes the ink transporting layer as comprising hydrophobic materials. See col. 4, line 62. Nevertheless, Hasegawa does indicate that some of the hydrophilic materials identified by the Applicants can be used in a binder to form the ink transport layer. However, the ink transport layer receives but does not hold water-based colorant images. As already noted, the ink retaining layer performs that function, the purpose of the ink transporting layer being to quickly transfer or transport the ink to the ink retaining layer. The ink retaining layer is made of hydrophilic material. See col. 6, lines 11-35.

One might think that Hasegawa contains an internal contradiction. How can one use hydrophilic materials in both the transport as well as the retaining layer? Hasegawa provides an explanation in the portion of his disclosure at the bottom of col. 5 and the top of col. 6, which teaches that the ink retaining layer has higher absorbing power than the ink transporting layer. In other words, the ink retaining layer is more hydrophilic than is the ink transport layer.

Hasegawa, in effect, teaches that one may use two hydrophilic layers in an ink jet media so long as the second or inferior layer is more hydrophilic than the top layer.

The claimed invention is the opposite of Hasegawa. In the claimed invention, the top layer is the more hydrophilic of the two layers.

Applicants also submit that Hasegawa fails to suggest the claimed invention. Again, Hasegawa like Iqbal shows only one image layer on a support. In contrast, the claimed invention has both an image-receiving layer with information recorded thereon and a clear hydrophilic layer that receives and holds water-based colorants. The claimed invention has two images or two layers of separate information. In both Hasegawa and Iqbal, any attempt to add water-based colorants to the upper layer will be met with defeat because that layer will quickly transport any water-based colorant images to the lower ink receiving or ink retaining layers.

In summary, the references fail to show or suggest the claimed invention. Claims 13-18 are now in this case, for which a notice of allowance is respectfully solicited.

Respectfully submitted,



Raymond L. Owens, Esq.
Reg. No. 22,363

**MARKED-UP COPY OF AMENDMENT SHOWING
CHANGES TO THE CLAIMS**

Cancel all the claims and insert the following new claims:

13. (new) A receiver for receiving a water-based colorant image transferred by a stamp, comprising:

(b) an image receiving structure having:

(iii) a support; and

(iv) an information receiving layer which contains recorded information, said information receiving layer being formed over the support; and

(b) a clear layer formed over the information receiving layer for receiving and holding a water-based colorant image, said clear layer being more hydrophilic than the information receiving layer.

14. (new) A receiver for receiving a water-based colorant image transferred by a stamp, comprising:

(b) an image receiving a structure having:

(iv) a support;

(v) a barrier layer formed over the support; and

(vi) an information receiving layer which contains recorded information, said information receiving layer being formed over the barrier layer; and

(b) a clear layer formed over the information receiving layer for receiving and holding a water-based colorant image, said clear layer being more hydrophilic than the information receiving layer.

15. (new) The receiver of claim 13 wherein the clear layer includes gelatin formulated with surfactants.

16. (new) The receiver of claim 13 wherein the clear layer includes material selected from the group consisting of polyvinylpyrrolidone (PVP), polyester ionomers, polyethylene oxide and copolymers of vinyl alcohol.

17. (new) The receiver of claim 14 wherein the clear layer includes gelatin formulated with surfactants.

18. (new) The receiver of claim 14 wherein the clear layer includes material selected from the group consisting of polyvinylpyrrolidone (PVP), polyester ionomers, polyethylene oxide and copolymers of vinyl alcohol.